

PDP Configuration

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Chapter 1 PDP Overview

1.1 Overview

PDP is specially used to discover network equipment, that is, it is used to find all neighbors of a known device. Through PDP, the network management program can use SNMP to query neighboring devices to acquire network topology.

Our company's OLT can discover the neighboring devices but they do not accept SNMP queries. Therefore, OLTs only run at the edge of network, or they cannot acquire a complete network topology.

PDP can be set on all SNAPs (e.g. Ethernet).

1.2 PDP Configuration Tasks

- OLT PDP Default Setting
- Setting the PDP Clock and Information Storage
- Setting the PDP Version
- Enabling PDP on OLT
- Enabling PDP on OLT
- PDP Monitoring and Management

1.2.1 OLT PDP Default Setting

Purpose	Default Settings
Global configuration mode	This function is not enabled by default.
Interface configuration mode	Enable
PDP clock (packet transmission frequency)	60 seconds
PDP information storage	180 seconds
PDP version	2

1.2.2 Setting the PDP Clock and Information Storage

Setting the PDP Clock and Information Storage

Command	Purpose
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pdp timer <i>seconds</i>	Sets the transmission frequency of the PDP packets.
pdp holdtime <i>seconds</i>	Sets the PDP information storage time.

1.2.3 Setting the PDP Version

To set the PDP version, you can run the following command in global configuration mode.

Command	Purpose
pdp version {1 2}	Sets the PDP version.

1.2.4 Enabling PDP on OLT

To enable PDP, you can run the following commands in global configuration mode.

Command	Purpose
pdp run	Enabling PDP on OLT

1.2.5 Enabling PDP on OLT

To enable PDP on a port by default, you can run the following command in port configuration mode.

Command	Purpose
pdp enable	Enabling PDP on OLT

1.2.6 PDP Monitoring and Management

To monitor the PDP, run the following commands in EXEC mode:

Command	Purpose
show pdp traffic	Displays the counts of received and transmitted PDP packets.
show pdp neighbor [detail]	Displays neighbors that PDP discovers.

1.3 PDP Configuration Example

Example 1: Starting PDP

```
Switch_config# pdp run
Switch_config# int G0/1
Switch_config_G0/1# pdp enable
```

Example 2: Setting the PDP clock and information storage time

```
Switch_config# pdp timer 30
Switch_config# pdp holdtime 90
```

Example 3: Setting the PDP version

```
Switch_config#pdp version 1
```

Example 4: Monitoring PDP

```
Switch_config# show pdp neighbor
```

Capability Codes: R - Router, T - Trans Bridge, B - Source Route Bridge

S - Switch, H - Host, I - IGMP, r - Repeater

Device-ID	Local-Intf	Hldtme	Port-ID	Platform	Capability
Switch	GiG0/1	169	GiG0/1	BDCOM, RISC	R S